

IN THE CLAIMS:

Please write the claims to read as follows:

1 1. (Amended) A method of obtaining proof of group membership in a computer
2 system, comprising the steps of:
3 A. presenting by a requester to an on-line server associated with a group a re-
4 quest for a certificate certifying that a particular entity is a member of the
5 group;
6 B. determining by the server whether the entity is a member of the group; and
7 C. issuing by the server [a] at runtime a newly-issued group membership cer-
8 tificate to the requester if the server determines that the entity is a member of
9 the group.

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1 2. (Amended) A method of obtaining proof of group non-membership in a computer
2 system, comprising the steps of:
3 A. presenting by a requester to an on-line server associated with a group a re-
4 quest for a certificate certifying that a particular entity is not a member of the
5 group;
6 B. determining by the server whether the entity is not a member of the group; and
7 C. issuing by the server [a] at runtime a newly-issued group non-membership
8 certificate to the requester if the server determines that the entity is not a
9 member of the group.

✓ 1 3. (Amended) A method for determining entity membership in a group, wherein a
2 server associated with the group performs the step of making a dynamic decision on

3 membership in the group of a particular entity, and if the decision is that the entity is a
4 member of the group, issuing at runtime a newly-issued group membership certificate.

1 4. (Original) The method of claim 3, wherein the dynamic decision-making step in-
2 cludes obtaining by the server proof of entity membership in a second group.

1 5. (Original) The method of claim 4, wherein the proof of entity membership com-
2 prises a group membership certificate.

1 6. (Original) The method of claim 4, wherein the proof of entity membership com-
2 prises a group membership list.

a2 1 7. (Original) The method of claim 3, wherein the dynamic decision-making step in-
2 cludes obtaining by the server proof of entity non-membership in a second group.

1 8. (Original) The method of claim 7, wherein the proof of entity non-membership
2 comprises a group non-membership certificate.

1 9. (Original) The method of claim 7, wherein the proof of entity non-membership
2 comprises a group membership list.

1 10. (Original) The method of claim 3, wherein the server performs the step of making
2 a dynamic decision upon a request from a requester, and wherein the requester performs
3 the step of presenting to the server proof of entity membership in a second group.

1 11. (Original) The method of claim 10, wherein the proof of entity membership com-
2 prises a group membership certificate.

1 12. (Original) The method of claim 10, wherein the proof of entity membership com-
2 prises a group membership list.

1 13. (Original) The method of claim 3, wherein the server performs the step of making
2 a dynamic decision upon a request from a requester, and wherein the requester performs
3 the step of presenting to the server proof of entity non-membership in a second group.

1 14. (Original) The method of claim 13, wherein the proof of entity non-membership
2 comprises a group non-membership certificate.

1 15. (Original) The method of claim 13, wherein the proof of entity non-membership
2 comprises a group membership list.

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1 16. (Amended) A computer system wherein a group membership certificate is issued by
2 an on-line certification authority upon request by a requestor, and a newly issued group
3 membership certificate is issued at runtime if the requestor is a member of the group.

1 17. (Amended) A computer system wherein a group non-membership certificate is
2 issued by an on-line certification authority upon request by a requestor, and a newly is-
3 ssued group membership certificate is issued at runtime if the requestor is a member of the
4 group.

1 18. (Amended) A computer system wherein a server associated with a group makes a
2 dynamic decision on membership in the group of a particular entity, and a newly issued
3 group membership certificate is issued at runtime if the entity is a member of the group.

1 19. (Original) The system of claim 18 wherein the server obtains proof of entity
2 membership in a second group.

1 20. (Original) The system of claim 19 wherein the proof of entity membership is a
2 group membership certificate.

1 21. (Original) The system of claim 19 wherein the proof of entity membership is a
2 group membership list.

1 22. (Original) The system of claim 18 wherein the server obtains proof of entity non-
2 membership in a second group.

1 23. (Original) The system of claim 22 wherein the proof of entity non-membership is
2 a group non-membership certificate.

a² 1 24. (Original) The system of claim 22 wherein the proof of entity non-membership is
2 a group membership list.

1 25. (Original) The system of claim 18 wherein the server makes the dynamic deci-
2 sion on a request from a requester, and wherein the requester presents to the server proof
3 of entity membership in a second group.

1 26. (Original) The system of claim 25 wherein the proof of entity membership is a
2 group membership certificate.

1 27. (Original) The system of claim 25 wherein the proof of entity membership is a
2 group membership list.

1 28. (Original) The system of claim 18 wherein the server makes the dynamic deci-
2 sion on a request from a requester, and wherein the requester presents to the server proof
3 of entity non-membership in a second group.

1 29. (Original) The system of claim 28 wherein the proof of entity non-membership is
2 a group non-membership certificate.

1 30. (Original) The system of claim 28 wherein the proof of entity non-membership is
2 a group membership list.

1 31. (Amended) A method of operating an on-line server on a computer network, said
2 server associated with a group and performing the steps of:

- 3 A. receiving a request from a network device for proof of membership of a client
4 in the group;
5 B. making a dynamic decision on whether the client is a member of the group;
6 and
7 C. issuing to the network device at runtime, if the server decides that the client is
8 a member of the group, a newly-issued group membership certificate proving
9 that the client is a member of the group.

1 32. (Original) The method of claim 31 wherein the network device is the client, said
2 client subsequently presenting to a resource server a request for access to a resource on
3 the resource server, said request including the group membership certificate.

1 33. (Original) The method of claim 31 wherein the network device is a resource
2 server receiving a request from a client seeking access to a resource on the resource
3 server, said resource server validating the group membership certificate and authorizing
4 client access to the resource.

1 34. (Amended) A method of operating an on-line server on a computer network, said
2 server associated with a group and performing the steps of:

- 3 A. receiving a request from a network device for proof of membership of a client
4 in the group;

- 5 B. making a dynamic decision on whether the client is a member of the group;
6 and
7 C. issuing at runtime to the network device, if the server decides that the client is
8 a member of the group, a newly issued group membership list proving that the
9 client is a member of the group.

1 35. (Original) The method of claim 34 wherein the network device is the client, said
2 client subsequently presenting to a resource server a request for access to a resource on
3 the resource server, said request including the group membership list.

1 36. (Original) The method of claim 34 wherein the network device is a resource
2 server receiving a request from a client seeking access to a resource on the resource
3 server, said resource server validating the group membership list and authorizing client
4 access to the resource.

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~~38~~ 38. (Amended) A method of operating an on-line server on a computer network, said
2 server associated with a group and performing the steps of:

- 3 A. receiving a request from a network device for proof of non-membership of a
4 client in the group;
5 B. making a dynamic decision on whether the client is not a member of the
6 group; and
7 C. issuing at runtime to the network device, if the server decides that the client is
8 not a member of the group, a newly-issued group non-membership certificate
9 proving that the client is not a member of the group.

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~~39~~ 39. (Original) The method of claim ³⁷~~38~~ wherein the network device is the client, said
2 client subsequently presenting to a resource server a request for access to a resource on
3 the resource server, said request including the group non-membership certificate.

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1 ~~40.~~ (Original) The method of claim ~~38~~³⁷ wherein the network device is a resource
2 server receiving a request from a client seeking access to a resource on the resource
3 server, said resource server validating the group non-membership certificate and author-
4 izing client access to the resource.

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1 ~~41.~~ (Amended) A method of operating an on-line server on a computer network, said
2 server associated with a group and performing the steps of:

- 3 A. receiving a request from a network device for proof of non-membership of a
4 client in the group;
5 B. making a dynamic decision on whether the client is not a member of the
6 group; and
7 C. issuing at runtime to the network device, if the server decides that the client is
8 not a member of the group, a newly issued group membership list proving that
9 the client is not a member of the group.

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1 ~~42.~~ (Original) The method of claim ~~41~~⁴⁰ wherein the network device is the client, said
2 client subsequently presenting to a resource server a request for access to a resource on
3 the resource server, said request including the group membership list.

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1 ~~43.~~ (Original) The method of claim ~~41~~⁴⁰ wherein the network device is a resource
2 server receiving a request from a client seeking access to a resource on the resource
3 server, said resource server validating the group membership list and authorizing client
4 access to the resource.

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1 ~~44.~~ (Amended) An on-line server on a computer network, said server associated with
2 a group and comprised of:

- 3 A. means for receiving a request from a network device for proof of membership
4 of a client in the group;

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- 5 B. means for making a dynamic decision on whether the client is a member of
6 the group; and
7 C. means for issuing at runtime to the network device, if the server decides that
8 the client is a member of the group, a newly issued group membership certifi-
9 cate proving that the client is a member of the group.

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1 ~~45.~~ (Original) The on-line server of claim ~~44~~ wherein the network device is the client,
2 said client subsequently presenting to a resource server a request for access to a resource
3 on the resource server, said request including the group membership certificate.

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1 ~~46.~~ (Original) The on-line server of claim ~~44~~ wherein the network device is a resource
2 server receiving a request from a client seeking access to a resource on the resource
3 server, said resource server validating the group membership certificate and authorizing
4 client access to the resource.

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1 ~~47.~~ (Amended) An on-line server on a computer network, said server associated with
2 a group and comprised of:

- 3 A. means for receiving a request from a network device for proof of membership
4 of a client in the group;
5 B. means for making a dynamic decision on whether the client is a member of
6 the group; and
7 C. means for issuing at runtime to the network device, if the server decides that
8 the client is a member of the group, a newly issued group membership list
9 proving that the client is a member of the group.

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1 ~~48.~~ (Original) The on-line server of claim ~~47~~ wherein the network device is the cli-
2 ent, said client subsequently presenting to a resource server a request for access to a re-
3 source on the resource server, said request including the group membership list.

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1 ~~49.~~ (Original) The on-line server of claim ~~47~~ wherein the network device is a re-
2 source server receiving a request from a client seeking access to a resource on the re-
3 source server, said resource server validating the group membership list and authorizing
4 client access to the resource.

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1 ~~50.~~ (Amended) An on-line server on a computer network, said server associated with
2 a group and comprised of:

- 3 A. means for receiving a request from a network device for proof of non-member-
4 ship of a client in the group;
5 B. means for making a dynamic decision on whether the client is not a member
6 of the group; and
7 C. means for issuing at runtime to the network device, if the server decides that
8 the client is not a member of the group, a newly-issued group non-
9 membership certificate proving that the client is not a member of the group.

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1 ~~51.~~ (Original) The on-line server of claim ~~50~~ wherein the network device is the cli-
2 ent, said client subsequently presenting to a resource server a request for access to a re-
3 source on the resource server, said request including the group non-membership certifi-
4 cate.

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1 ~~52.~~ (Original) The on-line server of claim ~~50~~ wherein the network device is a re-
2 source server receiving a request from a client seeking access to a resource on the re-
3 source server, said resource server validating the group non-membership certificate and
4 authorizing client access to the resource.

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1 ~~53.~~ (Amended) An on-line server on a computer network, said server associated with
2 a group and comprised of:

- 3 A. means for receiving a request from a network device for proof of non-
4 membership of a client in the group;

5 B. means for making a dynamic decision on whether the client is not a member
6 of the group; and

7 C. means for issuing at runtime to the network device, if the server decides that
8 the client is not a member of the group, a newly-issued group membership list
9 proving that the client is not a member of the group.

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1 ~~54.~~ (Original) The on-line server of claim ~~53~~ wherein the network device is the cli-
2 ent, said client subsequently presenting to a resource server a request for access to a re-
3 source on the resource server, said request including the group membership list.

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1 ~~55.~~ (Original) The on-line server of claim ~~53~~ wherein the network device is a re-
2 source server receiving a request from a client seeking access to a resource on the re-
3 source server, said resource server validating the group membership list and authorizing
4 client access to the resource.

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1 ~~56.~~ (Amended) A computer data signal embodied in a carrier wave and representing
2 a sequence of instructions that, when executed by a processor in a network device associ-
3 ated with a group, configures the network device to operate as an on-line server that:

4 A. receives a request from a second network device for proof of membership of a
5 client in the group;

6 B. makes a dynamic decision on whether the client is a member of the group; and

7 C. issues at runtime to the second network device, if the on-line server decides
8 that the client is a member of the group, a newly issued group membership
9 certificate proving that the client is a member of the group.

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1 ~~57.~~ (Original) The computer data signal of claim ~~56~~ wherein the second network de-
2 vice is the client, said client subsequently presenting to a resource server a request for
3 access to a resource on the resource server, said request including the group membership
4 certificate.

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1 ~~58.~~ (Original) The computer data signal of claim ~~56~~⁵⁵ wherein the second network de-
2 vice is a resource server, said resource server receiving a request from a client seeking
3 access to a resource on the resource server, validating the group membership certificate,
4 and authorizing client access to the resource.

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1 ~~59.~~ (Amended) A computer data signal embodied in a carrier wave and representing
2 a sequence of instructions that, when executed by a processor in a network device associ-
3 ated with a group, configures the network device to operate as an on-line server that:
4 A. receives a request from a second network device for proof of membership of a
5 client in the group;
6 B. makes a dynamic decision on whether the client is a member of the group; and
7 C. issues at runtime to the second network device, if the on-line server decides
8 that the client is a member of the group, a newly issued group membership list
9 proving that the client is a member of the group.

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1 ~~60.~~ (Original) The computer data signal of claim ~~59~~⁵⁸ wherein the second network de-
2 vice is the client, said client subsequently presenting to a resource server a request for
3 access to a resource on the resource server, said request including the group membership
4 list.

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1 ~~61.~~ (Original) The computer data signal of claim ~~59~~⁵⁸ wherein the second network de-
2 vice is a resource server, said resource server receiving a request from a client seeking
3 access to a resource on the resource server, validating the group membership list, and
4 authorizing client access to the resource.

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1 ~~62.~~ (Amended) A computer data signal embodied in a carrier wave and representing
2 a sequence of instructions that, when executed by a processor in a network device associ-
3 ated with a group, configures the network device to operate as an on-line server that:

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- 4 A. receives a request from a second network device for proof of non-membership
5 of a client in the group;
6 B. makes a dynamic decision on whether the client is not a member of the group;
7 and
8 C. issues at runtime to the second network device, if the on-line server decides
9 that the client is not a member of the group, a newly-issued group non-
10 membership certificate proving that the client is not a member of the group.

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1 ~~63.~~ (Original) The computer data signal of claim ~~62~~⁶¹ wherein the second network de-
2 vice is the client, said client subsequently presenting to a resource server a request for
3 access to a resource on the resource server, said request including the group non-
4 membership certificate.

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1 ~~64.~~ (Original) The computer data signal of claim ~~62~~⁶¹ wherein the second network de-
2 vice is a resource server, said resource server receiving a request from a client seeking
3 access to a resource on the resource server, validating the group non-membership certifi-
4 cate, and authorizing client access to the resource.

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1 ~~65.~~ (Amended) A computer data signal embodied in a carrier wave and representing
2 a sequence of instructions that, when executed by a processor in a network device associ-
3 ated with a group, configures the network device to operate as an on-line server that:
4 A. receives a request from a second network device for proof of non-membership
5 of a client in the group;
6 B. makes a dynamic decision on whether the client is not a member of the group;
7 and
8 C. issues at runtime to the second network device, if the on-line server decides
9 that the client is not a member of the group, a newly issued group membership
10 list proving that the client is not a member of the group.

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1 ~~66.~~ (Original) The computer data signal of claim ~~65~~ wherein the second network de-
2 vice is the client, said client subsequently presenting to a resource server a request for
3 access to a resource on the resource server, said request including the group membership
4 list.

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1 ~~67.~~ (Original) The computer data signal of claim ~~65~~ wherein the second network de-
2 vice is a resource server, said resource server receiving a request from a client seeking
3 access to a resource on the resource server, validating the group membership list, and
4 authorizing client access to the resource.
